



February 24, 2014

The Sampler is a monthly e-newsletter produced by the Volunteer Lake Assessment Program.

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Web Highlights

This month's featured lake website is [Pleasant Lake Protective Association](#), New London, NH

[Project:Ice](#) Documentary about the Icy Great Lakes

[Public Laboratory](#) for Open Technology and Science

Upcoming Events

NH Water and Watershed Conference

Friday, March 21, 2014
Plymouth State University
Plymouth, NH

Wild and Scenic Film Festival

Friday, March 28, 2014
Sponsor: NH Rivers Council
Red River Theater
Concord, NH

25th Annual Nonpoint Source Pollution Conference

April 29-30, 2014
Newport Harbor Hotel,
Newport, RI

Local Solutions: Northeast Climate Change Preparedness Conference

May 19-21, 2014

The Lake Trophic Survey Program is Back, and Better than Before!

As part of NHDES' revised water management strategy the Watershed Management Bureau has re-initiated its Lake Trophic Survey Program. These efforts are part of renewed emphasis on coordinated water quality data collection and reporting. Each year, one lake in each of up to ten targeted watersheds will be selected and monitored over a period of three years. In the first year, an intensive field survey will be conducted in August that includes water chemistry, a temperature / dissolved oxygen profile, and aquatic plant mapping. Water depth and aquatic plant data will be collected from the waterbody using a Lowrance high definition sonar unit. The data are then electronically transferred to the "cloud" using CIBioBase software. Ultimately, these data provide a bathymetric map, a plant density map, and overall estimate of submerged plant biomass.

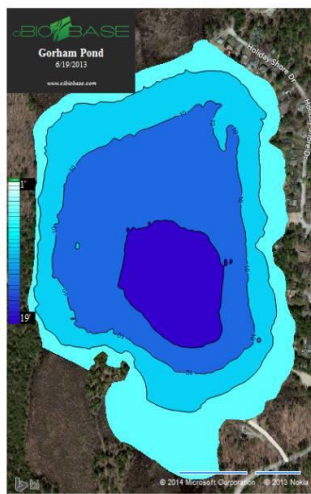


Figure 1. Sample Bathymetry

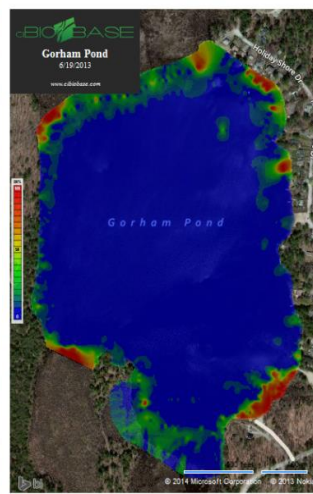


Figure 2. Sample Plant Biomass

In an attempt to better understand a lake's summer monthly and annual variability, the selected ten waterbody deep sites will be sampled for water quality parameters in two subsequent years (July in Year 2; June in Year 3). Once the program has been fully implemented up to 30 lakes and ponds will be sampled in a given year.

The data gathered from these efforts will be used in many important ways. First, a full lake-specific data report will be prepared and provide an updated (or initial) trophic class rating. The data will also become part of NHDES surface water assessment process as required by EPA. Third, the data will be used to generate a statewide report once every 10 years summarizing NHDES synoptic monitoring approach, a term used to define short

Center of NH, Manchester
Sponsor: Antioch University
New England & U.S.
Environmental Protection
Agency

**2014 NEC-NALMS
Conference**

June 13-14, 2014
University of Connecticut
Storrs, CT

Grants

**NRCS Conservation
Innovation Grants**

Deadline March 7, 2014

Limno Lingo

Phytoplankton: The assemblage of microscopic plants or photosynthetic bacteria free-floating in standing waters and large rivers with slow currents. Some forms have the ability to move by flagella or contain mechanisms to control buoyancy; however most are distributed by water movements. Typically, lake phytoplankton populations undergo a seasonal succession with different species dominant during different periods of the year.

term, focused monitoring efforts that are based on a rotating schedule of watersheds. Last, these efforts are designed to provide a continuously updated catalog of conditions for individual waterbodies and will compliment the other surface water monitoring efforts conducted annually by the Watershed Management Bureau.

Lakes and ponds selected for Lake Trophic Surveys will be available from the Watershed Management Bureau by the end of April each year. The process for selection will include a review of data age, public access, recreational use, and ecological resources. In 2013, NHDES sampled 9 lakes and ponds in the first year of this renewed effort, including two large lakes in the North Country; Lake Francis and Third Connecticut Lake. The Watershed Management Bureau will begin its 2014 selection process in February.

New Hampshire Lakes Association Accepting Applications for 2014 Lake Host Grant Program

The New Hampshire Lakes Association is pleased to offer the Lake Host Payroll Grant Program, one of the nation's premier aquatic nuisance species education and prevention programs, for its 13th year this coming summer! Since 2002, hundreds of paid and volunteer Lake Hosts have conducted more than 580,000 courtesy boat inspections and have made more than 1,409 'saves' of aquatic nuisance plant or animal specimens that were about to enter or had just left a waterbody.

NH LAKES invites groups that have participated during previous years and new groups to apply for a 2014 payroll grant award to implement the program at boat ramps open to the public on lakes, ponds, and rivers throughout New Hampshire.

For more information [click here](#).

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